## 🧪 **Test Suite: Shop Location Auto-Fetch (within 10km Radius)**

### ✅ **1. Positive Test Cases**

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| **TC ID** | **Test Case Description** | **Expected Result** |
| 01 | Auto-fetch shops within 10km of user’s current location | All shops within 10km are listed with name, distance, and contact |
| 02 | Shops sorted by proximity (nearest first) | Shops sorted in ascending order of distance (e.g., 1km, 3km, 5km...) |
| 03 | Shop markers displayed correctly on map view | All shops within 10km displayed as pins on the map |
| 04 | Tap on shop name → redirect to shop detail page | Shop detail screen opens with complete info |
| 05 | Distance shown next to shop name | Distance (e.g., "2.3 km away") is shown beside each shop listing |

### ❌ **2. Negative Test Cases**

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| **TC ID** | **Test Case Description** | **Expected Result** |
| GN\_LOC\_NEG\_001 | Location permission denied by user | Show error: “Location access required” and button to enable |
| GN\_LOC\_NEG\_002 | No shop found within 10km | Message: “No shops available nearby” with retry option |
| GN\_LOC\_NEG\_003 | Network is OFF during fetch | Message: “Check your internet connection” |
| GN\_LOC\_NEG\_004 | Location fetched incorrectly (e.g., GPS glitch) | Option to refresh location or manually retry |
| GN\_LOC\_NEG\_005 | Corrupted GPS data or long not available | Fallback to manual shop search or retry prompt |

### 📏 **3. Boundary Test Cases**

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| **TC ID** | **Test Case Description** | **Expected Result** |
| GN\_LOC\_BOUND\_001 | Shop located at exactly 10.0 km | Should be included in the result |
| GN\_LOC\_BOUND\_002 | Shop located at 10.01 km | Should NOT be included in the result |
| GN\_LOC\_BOUND\_003 | User on boundary of two shop zones | Nearest shops from both areas should be shown if within 10km |

### 📱 **4. UI Test Cases**

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| **TC ID** | **Test Case Description** | **Expected Result** |
| GN\_LOC\_UI\_001 | Check list layout for nearby shops | All shops listed with proper spacing, font, icons |
| GN\_LOC\_UI\_002 | Icons/labels like GPS, refresh, filter | All buttons/icons should be visible and functional |
| GN\_LOC\_UI\_003 | Test on small screen devices | Layout adapts correctly (no overlapping/scrolling issues) |
| GN\_LOC\_UI\_004 | Night mode / Dark theme | UI colors adapt correctly with no readability issue |

### 🚀 **5. Performance Test Cases**

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| **TC ID** | **Test Case Description** | **Expected Result** |
| GN\_LOC\_PERF\_001 | Time to fetch shop list with 4G | Shop list loads in < 3 seconds |
| GN\_LOC\_PERF\_002 | Load shop list in low network (3G) | Loading indicator + fallback mechanism in place |
| GN\_LOC\_PERF\_003 | App doesn't crash if 50+ shops are in radius | List scrolls smoothly, no UI lag or crash |

### 🔐 **6. Security & Permissions Test Cases**

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| **TC ID** | **Test Case Description** | **Expected Result** |
| GN\_LOC\_SEC\_001 | User disables location from phone settings mid-session | Prompt user to re-enable or fallback to manual search |
| GN\_LOC\_SEC\_002 | App requests permission again only when needed | No repetitive permission prompts |
| GN\_LOC\_SEC\_003 | Shop data not stored on device | Data should not be cached insecurely or permanently |

### 🌐 **7. Multi-Device & OS Compatibility**

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| **TC ID** | **Test Case Description** | **Expected Result** |
| GN\_LOC\_COMP\_001 | Test on Android 13 / iOS 17 | Feature works across latest OS versions |
| GN\_LOC\_COMP\_002 | GPS fetch works on both Android & iOS devices | Location fetched accurately on all devices |
| GN\_LOC\_COMP\_003 | Test in tablets & large screens | Layout responsive and properly aligned |